

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
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Date of mailing
(day/month/year) **13 SEP 2004**

Applicant's or agent's file reference

FOR FURTHER ACTION

See paragraph 2 below

15389WO01

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US04/04030

11 February 2004 (11.02.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): C11D 11/00, 1/12, 1/26; C07C 303/00; B01J 8/00 and US Cl.: 510/537, 495, 536; 516/200, DIG. 3; 422/135, 149; 558/31, 34, 39

Applicant

STEPAN COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US04/04030

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US04/04030

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-37</u>	YES
	Claims <u>NONE</u>	NO
Inventive step (IS)	Claims <u>1-25, 33-37</u>	YES
	Claims <u>26-32</u>	NO
Industrial applicability (IA)	Claims <u>1-37</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 26-32 lack an inventive step under PCT Article 33(3) as being obvious over Silvis (US Patent No. 4,544,493).

Silvis teaches a detergent product prepared from a neutralization process which contains at least 73% of detergent salt, such as sodium lauryl sulfate (see col. 12, lines 9-16). In Example 3, Silvis teaches a dried product containing 94.0% of sodium lauryl sulfate (see col. 17, lines 26-36). Silvis, however, fails to teach the recited process for making the detergent salt.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making.

Claims 26-32 lack an inventive step under PCT Article 33(3) as being obvious over Bauer et al. (US Patent No. 5,739,097).

Bauer teaches surfactant granules which contain from 10 to 100% by weight of surfactants based on the final granules (see col. 7, lines 39-44). In Example 4, Bauer teaches dust-free, non-tacky granules which comprises 92% by weight surfactant, that is, sodium alkyl benzenesulfonate (see col. 8, line 15 to col. 9, 26). Bauer, however, fails to teach the recited process for making the surfactant granules.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making.

Claims 26-32 lack an inventive step under PCT Article 33(3) as being obvious over Emery et al. (US Patent No. 6,514,930).

Emery teaches detergent particles with anionic surfactant content of at least 50%, 60%, 70% with a maximum amount of 90% by weight (see col. 6, lines 15-19). Emery, however, fails to teach the recited process for making the detergent salt.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making.

Claims 1-37 meet the criteria set out in PCT Article 33(2), because the prior art does not teach or fairly suggest a process for producing a high active surfactant product in the manner as those recited, the surfactant product thereof and the recited vacuum neutralizing reactor.

Claims 1-25 and 33-37 meet the criteria set out in PCT Article 33(3), because the prior art does not teach or fairly suggest a process for producing a high active surfactant product in the manner as those recited and the recited vacuum neutralizing reactor.

Claims 1-37 meet the criteria set out in PCT Article 33(4), and thus the claims meet industrial applicability because the subject matter claimed can be made or used in industry.